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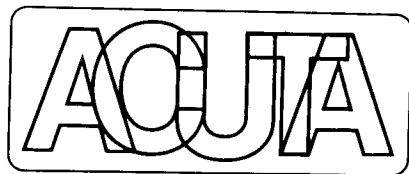


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# NEWS

**Association of College & University Telecommunication Administrators**  
THE VOICE OF TELECOMMUNICATIONS IN HIGHER EDUCATION

VOLUME 16, NUMBER 10

NOVEMBER, 1987

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## President's Message

— Kia Malott, Southern Illinois University

Time really does fly by when you stay busy. Being President of ACUTA and installing a new campus telecommunication system may be more than one human ought to try and do. It certainly is exciting and challenging.

For those of you who attended the New Orleans Seminar thanks for making it the success it was. As always, there are those to thank for making it all happen. A special thanks to Steve Carnillo for hosting the seminar and to Del Combs and Mal Reader for their usual outstanding work.

If you missed New Orleans don't feel bad, Tucson is just around the corner. An outstanding program with Michael Finneran is planned and a number of excellent exhibitors will be available to explain and demonstrate their products. All in all it promises to be an educational and exciting experience.

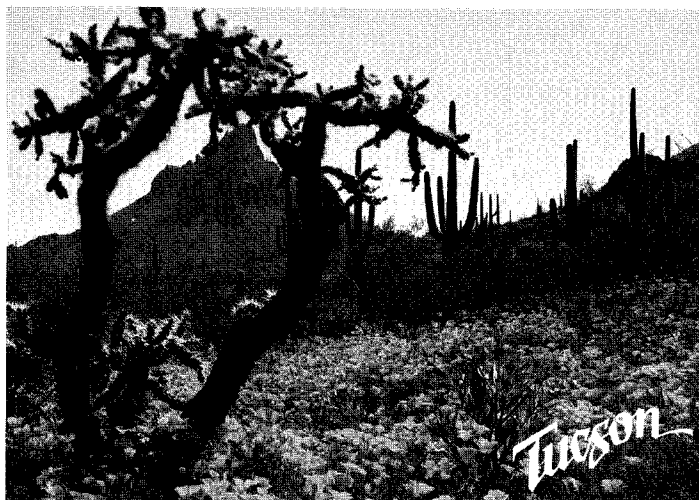
At the Board meeting scheduled for Tucson the main topic of discussion will be the hiring of a full time ACUTA position to assist in many of the responsibilities now handled by Board members. As ACUTA continues to grow so does the work load and the need for a professional position appears to be at hand. I hope to have more to report to you on this item in the near future.

I would like to encourage any of you who are experiencing new and interesting concepts in telecommunications on your campus to share those activities through the ACUTA News. ☺

## WINTER 1988 SEMINAR

January 10-13, 1988

Westward Look Resort  
Tucson, Arizona



## PARTY LINE

—Ruth Michalecki, Nebraska

As promised, the New Orleans Fall Seminar was great! The registration, city, hotel, food, social activities and exhibit area were all very good; and the program was excellent. The Fall Seminar was successful by any measure---thanks to Kia Malott, Mal Reader, Del Combs, Steve Carnilla and our speaker Joe Massey.

The seminar focused on the problem of "End-User Support". Joe Massey gave this definition of the equation of a successful system:

"Successful systems require happy end-users = trained users = knowledgeable users = who are sold on the idea of the system".

There is a great difference between services that are permitted and those that are supported. He cautioned against permitting services you cannot support. Support was defined as "Providing sufficient training and operating resources to meet initial, future and impulse demand of the telecom system in a user friendly manner."

Financial resources and political realities are both factors used in determining what services "can be" provided. Support means - you can make it work, no matter what. Once you open the window and permit the function, no matter how the users use it, it has to work. A supported function required:

- 1) understanding of the user's abilities & shortcomings.
- 2) understanding of the system's capabilities.
- 3) combining best understanding with your management skills to make system work effectively.
- 4) know what the "got-cha's" are ahead of time.
- 5) think like a user.

You should consider providing any service that further enhances the productivity, the marketability and growth of the university; that can be provided with support in a timely fashion at least 90% of the time and will function better than 99.9% of the time.

You migrate from permissive to support as usage grows, as integration occurs and when you are forced to support services for other reasons.

User friendly was defined as: Users want to use it and they are able to use it because it is easy to understand! This factor enhances office productivity because happy, satisfied people work better. A user friendly system is also a factor in enhancing the marketability of the institution by improving its image in the perception of the community, the research community and funding agencies. We were reminded that our users are external to our systems as well as internal.

We have a difficult job---users perception of telephone service is very high. They are accustomed to receiving excellent service and therefore that is the standard by which your service will be measured. For example, users are accustomed to receiving instant dial-tone when they pick up the receiver versus a slow or sleepy dial tone,

## PARTY LINE. Continued:

therefore instant dial-tone becomes your standard. Are your users already happy with what they have? If so, you have a more difficult job in changing the system. Users frequently can't describe accurately their needs. Are you certain you understand what they want, or is there a hidden agenda behind the requests. You might consider letting your present system deteriorate before implementing a new system---the expected service standards will be measured differently. Telephone Companies have been successful over the years because they had a keen understanding of end-users. Their systems were designed and supported so they functioned regardless of how the end-users used the system, or as Joe said "regardless of the button-pushing fools".

His key to successful training is discovering if a user can figure out how to operate the features from reading a manual. He said all manuals should be proofed by a user trying to follow the instructions, using a single line standard 2500 type telephone set. He recommended throwing out the standard set of instructions from the manufacturer and writing your own, or getting professional help in writing the user's guide.

Communication System complaint is usually the first symptom of a management problem. America loves to throw technology at office problems, but doesn't spend either time or money on support or training. They never seem to learn that technical solutions never solve management problems.

If you are going to control the communications system, you need to be responsive! Know the real uses and demands, for example, what is the real demand for student access to campus data-bases? Needs analyses should be done by the telecommunications staff or a consultant working for that office, while implementation of the system should involve the end-users.

And finally Joe reminded us that: You do not have to know everything and the people above you don't expect it of you. You should be able to hire the expertise required to do special things and projects. Good management is managing the process. You don't put out fires---you prevent them.

Several ACUTA members brought training materials and other examples of things they had done to enhance their department's image. Audience participation was excellent; always a good indication of a successful seminar.

Again, our thanks to Joe Massey for an outstanding job!

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Heard from Larry Larson at the University of New Mexico. He is busy as always, and he has a serious staffing problem, or should I say a lack of staff. . . . He is hoping some of you might give him a helpful hint or two in how to get the ear of his top administration concerning this problem. Call Larry at 505-277-2421.

Larry said they completed the installation of a 4,000 line NEAX-2400 in tandem with their 12,000 line NEAX-221. They have started the initial steps of providing long distance service to the residence hall students; something they wanted to do originally with the first installation, but couldn't because of authorization code validation problems. He found the recent article from Norm Sefton most helpful since it appeared about the time they were ready to propose their resale project.

He has volunteered to host an ACUTA seminar in Albuquerque sometime in the future and I am sure the site selection committee will be happy to consider his offer.

Good luck Larry on your student project and I am sure you will be getting a few calls from our fellow members about your staffing levels and the student services. Thanks for writing.

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What a boost my ego got when I saw Portia Goodman from Rockefeller University in New Orleans. Portia attended the introduction to Telecommunications Seminar in Boston last summer, taught by Steve Merrill and yours truly. Portia is one dynamite lady. She took several of our suggestions and incorporated them into her department when she returned home. She immediately started a review (in-depth) of all charges and was highly successful at getting an enormous refund from the telco for overcharges; in fact, so successful, she was able to add to her staff and provide them with training. She has established a new telecom policy, developed a data base for equipment/inventory control and billing purposes; introduced new services and has changed the overall perception of the telecommunications department at her institution.

And, unless I miss my guess, watch out, she has just started! Portia said in her letter that she was grateful to ACUTA and to both Steve and myself for the time, attention and suggestions we gave her. Believe me when I say we are grateful for the time Portia spent attending our session and for taking the time to let us know how our advice worked. . . . Thanks Portia, keep up the good work!

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In this month's newsletter, we have a photo review of the New Orleans Seminar. If you were there, hope we caught you attending the session or looking at the exhibits. We managed to get a few snaps of the exhibit area and our industry members who support ACUTA, either by sponsoring a function during the seminar or by participating in the exhibits, or both. Without their support, it would be impossible to bring our members the high quality seminars and speakers that we offer at such reasonable fees. Del Combs, University of Kentucky and current Vice-President of ACUTA is Chairman of the Sponsorship and Exhibitor Program. Del's number is: 606-257-1820.

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My thanks to John Powers of Powers, Tritsch & Associates, Inc., for helping me out at the recent FOC/LAN '87 Conference in Anaheim, California. At the last minute, I was asked to make a presentation on campus that I couldn't refuse. It was unfortunate that it was on the same date as the FOC/LAN conference that I had agreed to participate in as Chairman of a panel covering the growing use of fiber in university networks. The panel consisted of Bob Cape, formerly of Carnegie-Mellon, Alex Lapson from Northwestern University, and Scott Gordon of VIA Informationways. The conference was sponsored by Information Gatekeepers. Thanks to John and the panel members for their help.

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By the next issue of ACUTA News, we will have cutover to our new switching system. I will let you know how everything went and how we are surviving with the Northern Telecom operator consoles. . . . See you next month! ☺



"I'm stirring up a little trouble for AT&T. Care to add anything?"

# EIGHT ACTION POINTS FOR TELCO EXECS

— Harry Newton

## IT'S TIME TO RETHINK THE TELEPHONE INDUSTRY

### Who'll be the first telephone company:

- To drop the extra charge for touch tone service?
- To sell answer supervision to its subscribers?
- To guarantee to regulators it won't raise any rates for 10 years?
- To appoint a president from outside the industry?
- To sell COCOT (private payphone) lines at the same price as normal business lines?

### Who'll be the first phone company:

- To voluntarily reduce its access charges to long distance carriers and charge them the same price for local calls as everyone else pays?
- To offer phone abatements to lure in new industry?
- To give away "call waiting" to its customers?
- To charge its residential customers less if they sign up for a year?
- To charge new customers less if they schedule their installation on the day "our installers are in your area"?

### Who'll be the first phone company:

- To set up a CO-based answering service/message center for its subscribers?
- To allow its customers to remotely change the number they call forward to?
- To sell local message alerting service to electronic mail providers?

### Who'll be the first phone company:

- To rent space in its central offices for customer-owned short-haul microwave installations?
- To guarantee its installation dates?

### Who'll be the first phone company:

- To pay a penalty if its promised installation dates are not met?
- To offer to check each day the quality and functioning of customers' INWATs lines?
- To allow its customers to start and stop services using their PC and modem?

### Who'll be the first phone company:

- To let customers pay their monthly bills with American Express, Visa, Master-Card, etc.?
- To allow their customers to make direct bank-to-bank payments of their phone bills?
- To welcome the private payphone industry?

## The Search For Change

As overseas competition has heated up, American business has changed its "Corporate Culture." It has "Searched for Excellence." It has studied "Japanese Management."

And it is about to indulge its "Renewal Factor" -- the title of the new book by the co-author of *In Search of Excellence*.

No matter how you feel about these fashionable management trends, it is obvious that American industry had put itself through wrenching changes in the past few years.

For the phone industry, however, it's been "business as usual." In fact, it's been worse than that.

Our recent strong finances -- the strongest in years -- have lulled us into a false sense of security and masked some fundamental long-term problems we have yet to address.

Our recent big financial gains have largely come because of two happenings:

1. The levying of heavy access charges on our customers, and
2. Our own "downsizing," i.e. our firing and/or retiring many of our long-time, loyal employees.

Millions of these dollars have been spent and precious management attention wasted by telco holding companies on businesses they know little or nothing about -- from interconnect to computer retailing from leasing to long distance.

Yet, we have largely ignored our core telephone business. Billions of dollars have, it is true, been spent on new equipment. But the focus of those expenditures and the equipment it has bought has retained the telephone industry's traditional focus -- namely **internal**.

We have focused on improving our lives as providers of telephone service, rather than enriching our subscribers' lives with new, useful services.

Today, there isn't a telephone customer on a digital central office who can tell if he's on a digital or analog CO.

He gets no extra service, enjoys no additional features, perceives no quality difference and gets no price break from all that new technology.

In fact, there are many telephone customers, who'd actually prefer older non-program control electronic central offices.

Today, **CO Magazine** lost its outgoing phone service.

Something "happened" last night in the CO. No local telco executive knows what. They are still investigating. I suspect it was what happened many times before: Our CO "crashed" and the software instructions (a.k.a. translations) didn't load correctly.

Who'll be the first telephone company to set up test boards in their central offices? Who'll be the first telco to allow their customers to call the testboards directly and get their software problems fixed instantly?

Who'll be the first telephone company to attack and solve a service problem **without first filling in a trouble report**?

Who'll be the first telephone company to prefer customer happiness to telco paperwork?

## 95 New Services

Recently one large telephone company asked me to help them introduce new services. We assembled their brightest people. (There are some very bright people in our industry.)

After two hours of free-form "creative thinking," we'd come up with 90 ideas for profitable new services. You could start most of these **without** significant capital investment.

## WHITE PAPER TO TELCO MANAGEMENT

(Typical of the new services -- bill stuffers, remote call forwarding changing). I thought I had lots of ideas. I was wrong. They had 10 times more.

We stopped the discussion. If they knew all these new profitable services, why hadn't they introduced them?

The answer was simple: Their telephone company was not encouraging them.

Oh, yes, it was mouthing the correct words -- innovation, change, customer responsiveness, pro-active marketing -- all the right Harvard Business School buzzwords.

But their company was not allowing the necessary entrepreneurship **within** (a.k.a. "intrapreneurship") the structure of the traditional telephone company.

The organization necessary to produce change was out of line with an organization necessary **not** to produce change.

## Eight Action Points, Continued:

Remember, most customers would prefer their "software translations" to be permanent, not subject to the arbitrary whim of a crashing electronic central office.

### **The Killing of Payphones**

There is a terrible shortage of payphones in the United States. The "specialization" of payphones has aggravated the shortage.

Payphones used to be "universal." You could use the same one for local calls, for long distance calls, for coin, for collect and for credit card calls.

At airports today, there are unused payphones. And there are payphones with long lines of impatient customers.

If telephone industry accounting ever reflected the true costs of collecting, protecting and counting the coins and repairing the phones, the industry would be aghast at its losses.

Yet the industry refuses to rid itself of, or share the payphone burden, by allowing "partners," also called private payphone providers.

#### **To wit:**

The phone industry refuses to provide answer supervision to private payphone owners. Thus, users of these phones get charged for calls they didn't make. And they get charged too much for calls they did make. (This makes for great customer goodwill.)

Telephone company monthly rental rates on private payphone lines are outrageous. It's impossible to make any money owning a private coin phone in some cities.

Telephone company installation interval on private payphone lines gives lengthy provisioning a whole new meaning.

Yet, there are substantive benefits to telephone companies if they would encourage the growth of the private payphone business.

The public pressure for more payphones, for example, would now have another villain. The telephone industry might actually begin to make money on the payphones, once it's divorced from the costs of actually collecting, counting and protecting coins.

And the public will have more coin phones to use.

All this will build on itself. Studies show the more payphones, the more network usage. We can call it the *Impulse Call Syndrome*. It's a close cousin to what happens at the supermarket checkout counter.

### **"Doom & Gloom Books"**

"Doom and Gloom" books are very popular at present. They forecast a severe recession within the next five years.

Whether you believe these fast-selling books or not is irrelevant. What's relevant is that there are special circumstances which could aggravate for the telephone industry any downturn in the economy. Some special telco "circumstances" include:

**Bypass.** The biggest and fastest-growth area in our industry currently is corporate networks. GE, GM and every middle-size corporation is building its own private network.

The foundations of many of these networks are local bypass cable and local bypass private microwave.

Financial payback on local bypass installations is rarely longer than 18 months. (Curiously that's how long it takes some telcos to provide T-1 lines to their biggest customers!)

**Switching.** Privately owned PBXs and privately owned tandems are more flexible, offer more features, and cost a less than Centrex and Centrex-type services provided by telcos.

COs lag PBXs, not in capabilities but in services. Most telcos are not attuned to marketing the full potential of their powerful central offices. PBX and private network vendors are much more marketing oriented.

There are no reasons why a central office shouldn't provide far more services, better networking capabilities and at a much lower price. In fact, there are sound reasons (chiefly economics of scale) that a central office should beat the pants off any PBX.

**Phone Fat.** There is enormous fat in most corporate phone bills. Too many lines. Poorly networked. Poorly configured. The fat has grown with the tolerant, buoyant economy of the last few years.

Most corporate phone bills are wrong, also. Mistakes are rife. Sprint is not the only telephone company sending its customers wrong bills.

There's an enormous consulting business in auditing telephone bills and getting refunds back from telcos. There's an even bigger business in cutting the fat out of phone bills.

**The Fickle FCC:** Local telcos have benefited enormously because of huge access charges. These charges were the serendipitous result of divestiture and a heavy dose of guilt pouring out of Washington.

There is now a growing realization the extent of the access charges was unjustified.

And, while they may be killing the long distance industry, these access charges will, in the long run, kill (or severely hurt) the access charges' prime beneficiaries -- the local phone companies.

When the FCC (or whoever in Washington is currently playing God) decides to play around with the economics of an industry as fundamentally as they did with access charges, that person must bear the consequences of bypass, bypass and more bypass.

The goose that laid the golden egg for the local telcos -- namely the long distance industry -- is running out of gold, and eggs.

Most long distance companies are now losing money. Most have lost more money in the past two years than they've ever made in their total existence. There is some doubt that some of them -- e.g. Sprint -- will make it to the end of 1987.

Once the long distance industry consolidates into fewer hands, we can expect to see access charges drop dramatically, just as we are today witnessing an unprecedented increase in airline fares.

**Telco Attitudes To Their Customers:** All our outgoing service crashed a couple of days ago. It took three hours to get it restored. Had CO Magazine been a "normal" customer, it would have taken longer, perhaps all day.

As I write this -- the crash was two days ago -- I'm still waiting for a logical explanation, which I was promised.

Customers are the telephone industry's lifeblood.

Increasingly, our phone service is the "lifeblood" of our customers. They are more reliant on it than ever.

Yet, look at telephone industry's speed of installation, repair, bill modification, price inquiries, service availability questions. . . There really hasn't been any significant improvement in 10 years.

In many areas, it's become worse. Try placing a call to your company's general repair number. In some cities, professional telecom managers call it "Dial a Prayer."

How many of your customers can dial your central office's test board directly and get their problems fixed on-line?

## Eight Action Points, Continued:

### **The Eight Action Points**

My studies of the phone industry show that there are eight Management Areas a telephone company must work on if it is to survive the next 20 years.

There are also eight basic lessons in Robert H. Waterman, Jr.'s new book *The Renewal Factor*. He is, you'll remember, co-author of *In Search of Excellence*.

**1. The Nation's Telephone Companies Need Very Different Top Management Leadership.** This is the hardest area to write about. But the signs are everywhere.

We Don't bring new blood in from the outside. By the time our senior management becomes "senior," they are lame ducks, usually fewer than five years from retirement.

With so little time to go, they look to their financial rewards from traditional arenas of regulation and rate hikes -- rather than riskier areas of the marketplace and introducing new services.

They believe in cost-plus accounting, rate of return regulation, preserving the status quo, keeping out competition, and being very leery of young people's ideas for "crazy" new services.

New York Telephone has pioneered the idea of having a young president by appointing a new one aged a tender 43.

The industry anxiously awaits whether youth will make any difference in outlook.

Despite New York Tel's *In Search of Youth*, the sad fact is he continues our industry's history of appointing from inside. New York Tel's new president has spent his entire life among telephones.

Says one senior NY Tel executive, who prefers to be anonymous, "What this industry needs are some senior executives from competitive industries.

"These executives would have two characteristics. They would behave every day as if their most important job was to create a new customer.

"And they would be willing to reward successful risktakers in our industry."

**2. We Need a Strong Telephone Company Vision.** Too many telephone company "Visions" are too nebulous, too vague and too undefined.

In order to work, a "Vision" must provide real guidance to the day-to-day activities of telco employees.

One telco wants to be the best urban company. Another wants its employees to be great cowboys. Another wants to be the best place to work in the western world.

A Vision must provide a yardstick against which all telco employees can measure what they should and shouldn't do every day.

None I've seen do, yet.

Worst are the companies whose parent, holding company has one Vision and whose operating telephone companies have other Visions -- usually in conflict with each other.

There is only one telephone company **Vision**, namely, **Fortress Telephone Company**.

"Draw a line at our boundary. Build an imaginary wall there.

"Every telecommunications service within our wall we will provide.

"We will provide that service, **not** by monopoly fiat, not by right of being there, not by right of being regulated to be there, but because we earned it the old-fashioned way: By giving our customers telecommunications service at a price and at a reliability they couldn't find elsewhere -- from either another vendor or from themselves (as their own telecom vendor)."

Every action -- daily, short-term and long-term -- must be aimed at consolidating the local telecommunications pre-eminence. No competition can be tolerated.

There are many reasons for this obsession with market pre-eminence and for the obsession with winning it in the marketplace, not in the regulatory arena.

The overwhelming reason is that regulatory-fiat is short-term. Market pre-eminence is long-term.

Had AT&T thought marketing, not regulation, when it lost regulatory pre-eminence on PBXs in 1968, it would not be now trying to fight back from under a 20% market share.

**3. We Need To Make Our Employees Revenue- and Expense-Literate.**

Try this quiz on ten of your senior executives: *Name 20 services your company sells. Describe those services. Tell me how they're priced. Who buys the services? Why do they buy them?*

Try another quiz: *Name your top 10 competitors. Describe the services they provide. Who buys those services and why?*

Most of today's senior telephone company executives would fail both these simple quizzes.

Most senior executives simply do not understand their own products nor those of their competitors.

Thus their day-to-day actions are made often without thought to their impact on customers and on the marketplace.

Try another quiz: *When was the last time you (a senior telco manager) passed on a sales lead to one of your salespeople? You may have picked up the sales lead at your country club. A fellow member was moving his 100-person business and would be a good candidate for Centrex.*

*Did you follow up to see if the sale was made?*

All this is called becoming "Revenue Literate." It's a critical skill today's telco executive needs.

The opposite side of the same coin is making our people **expense-literate**.

Employees can bankrupt a corporation if they don't behave cost-competitively. Yet today many don't. Employees have to be concerned every day when using the corporate resources -- from items as trivial as paper clips to taking days off.

Employees must be made to recognize that everything they use and do ends up in **the cost of the product and the services** their company is fielding in the marketplace.

If that cost is too high, customers will desert. If customers desert, jobs will quickly follow.

Redundancy, early retirement, Management Incentive Programs (MIP), are euphemisms for weakening the corporation, for disposing of the most precious of precious assets -- trained, loyal people.

A recent survey of several hundred senior executives outside the phone industry showed the major gating factor on corporate expansion in 1987 is **not** money, factories, raw materials, ideas, etc. It's trained, loyal people.

## Eight Action Points, Continued:

**4. We Need A New Accounting System.** The accounting system we have -- one designed for regulatory overview in the late 1890s -- is not useful for management, entrepreneurial overview in the late 1980s.

"We have no idea of our true costs," said one BOC VP. "Our accounting system is riddled with strange allocations. It's impossible to realistically budget a new service. It's impossible to know when the service starts whether it's making money."

"It is impossible to make sane pricing decisions."

Some examples of what he regards as "insane" pricing decisions:

Touch tone service makes for faster phone calls -- for telco and for subscribers. It benefits both.

Yet we charge substantially more for touch tone service, thus dissuading our customers from using it and reducing the benefits we can derive from it.

Moreover, our craft and our management spend huge amounts of unproductive time actively restricting and policing the restricting of lines from receiving touch tone signals -- probably the world's most counter-productive task.

It's probably time to give away touch tone service, and charge extra if our customers want rotary.

Most major cities now have measured local service. Thus it makes sense to encourage subscribers to have "call waiting."

If we did our accounting correctly, we'd find it cheaper to **give away** call waiting and charge those subscribers \$1 a month if they don't want it (unless they have a second phone line on hunt.)

**New customers don't pay for themselves until a year or so.** Old customers cross subsidize new customers.

There are many ways of removing this unhealthy cross-subsidy -- from encouraging long-term signups, to scheduling lower cost installations, to allowing subscribers to transfer (without penalty) phone numbers.

The solution? An accounting system that keeps overhead costs strictly separate from direct operating costs.

An accounting system that's flexible enough to allow managers to make intuitive, non-financial decisions when things "just feel right."

**5. We Need A New Set of Operating Assumptions.** There are many. In fact, so many, we broke some out into a separate article and highlighted a few.

The upshot of these "Assumptions" is simple: Those business assumptions which worked for a **monopoly** environment do not work in a **competitive** world.

The time is at hand to question **all** the assumptions under which we have been running our telephone industry.

**6. We Need Strong Partnerships with Manufacturers.** ISDN experiments are sound examples. They could portend closer working relationships on services that can be introduced, made workable, sold and made profitable today.

Such joint ventures are born in heaven. We, the telcos, have the network -- the ultimate delivery mechanism.

They have the equipment and the marketing skills. It's perfect.

We at *CO Magazine* have passed on many new products and services to telephone companies.

Some manufacturers perceive we have a special "in" with the nation's telephone companies. They're right.

We can "put the idea in." But getting action -- some form of intelligent, time-urgent response -- is an entirely different matter.

Some telephone executives are so arrogant, they forget to send even an "acknowledgement of receipt." Even United Parcel Service does better.

**7. We Need To Establish A Separate Entrepreneurial Group.** Probably in another building. These troops will have to become the "Green Berets" of the telephone industry. They will have to become a special force with the ability to take on hard jobs and get them done fast and efficiently.

A group dedicated to change and the introduction of risky, new services simply cannot cohabitate with a group dedicated to preserving the integrity of the Status-quo -- namely the network.

Moreover, we've tried it. And it hasn't worked.

**8. We Will Have to Structure Whole New Reward Schemes:** It should be possible to become a millionaire, though you work for a telephone company.

Our pay scales are all out of whack. We pay our craftspeople too little money. We pay our middle to upper management too much money. And we don't pay our innovators and entrepreneurs enough.

Telco management pay scales reflect obsolete ideas. They reflect the fact that the longer you stay in telco management, the higher you must climb the ladder, acquire more people to manage and get paid more.

This assumption is no longer valid. Technology has changed it. You now need **fewer** people to manage modern phone companies. Automation, technology, the computer and stored program control digital central offices have made our lives simpler.

We now need fewer people to manage, but more to innovate. Yet too few managers innovate; too many manage, or create paperwork to appear as though they're managing.

Most above third-level telephone company executives are paid more money than they could earn in "the real world." Overpaying breeds incredible loyalty. This is good.

Overpaying also breeds incredible carefulness -- great reluctance to take any significant risks, or to risk failure.

Today we reward "nice guy behavior" too much. We don't reward "bringing product to market." We don't reward employees with urgency in their bellies.

It should be possible to become a millionaire while working full-time for a telephone company.

## **THE EIGHT ACTION POINTS SUMMARIZED**

1. New Top Management Leadership.
2. New Strong Corporate Vision.
3. Revenue and Expense-Literate Employees.
4. A New Accounting System.
5. A New Set of Operating Assumptions.
6. Strong Partnerships With Manufacturers.
7. The Establishment Of A Separate Entrepreneurial Group.
8. The Structuring Of A New Employee Reward Scheme.

ACUTA wishes to "Thank" the CO Magazine for this article by Harry Newton, Editor.



## U S West unit signs US Sprint to card validation service

--- Carol Wilson

U S West's operator service subsidiary has signed up US Sprint as the first national customer for the new calling card validation service it hopes to offer nationally.

U S West Service Link Inc. will provide the database service, known as Billing Validation Services, that enables US Sprint operators to validate the calling cards of Bell operating companies and other local exchange carriers. The service, scheduled to begin during the first quarter of 1988, will permit US Sprint customers to bill their long-distance calls to their local phone number. It will allow US Sprint to move into markets, such as pay phones, hotels and hospitals, to which it previously lacked access.

U S West Service Link, a subsidiary created by U S West when it took back its operator services, is using proprietary software developed by another U S West unit, Applied Communications, on a Tandem computer to provide the database service for calling card validation, says Lois Schmidt, Service Link president.

Service Link is negotiating with other Bell companies to supply verification of calling card numbers, Schmidt says. The BOCs use AT&T's database service.

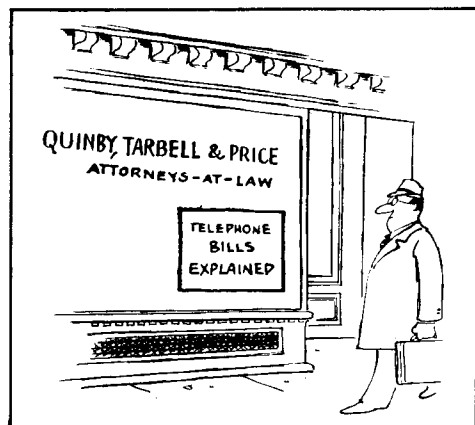
Because US Sprint had no way of validating cards, it has had to turn away about 500,000 calls a month from customers wanting to bill a long-distance call to their local calling card, says Ed Carter, executive vice president-sales and marketing for US Sprint. Because US Sprint had no way of validating those numbers to prevent fraud, it couldn't accept those calls, he explains, and was effectively barred from a \$4.9 billion annual market.

Now that it can handle calls billed via local exchange calling cards, US Sprint can also compete with AT&T for pay phone business in airport terminals and for service to hospitals and hotels.

The U S West Service Link database service could also address some of the U. S. Department of Justice concerns about BOC calling cards. Since divestiture, AT&T and the BOCs have shared the same database for validating and billing calling card calls. Since there was no way for IXCs other than AT&T to validate card numbers, all long-distance traffic generated by BOC calling card customers went by default to AT&T.

The DOJ charged earlier this year that this arrangement was discriminatory and violated the Modified Final Judgment (See Telephony, June 15, page 13).

The above article is from TELEPHONY/November 9, 1987 issue under News of the Week, written by Carol Wilson, News Editor.



## Critical Issues in Premises Cabling

--- Dick Barron

Until recently, premises cabling distribution systems have been a non-issue for those who plan and manage telecommunications, and for good reason: the cable distribution system most often was owned, maintained, and augmented by the local telephone company. Traditionally, the only portion of the distribution system that telecommunications managers had to include in forward plans was individual station wire needs, but no longer.

With the deregulation and detariffing of premises wiring, customers frequently own the distribution facilities. And while the universal wiring issue is not a new one, customer ownership and control of the building cable have given renewed urgency the need for resolution.

Even in those cases where the local telephone company continues to maintain the in-place cable facilities, planners must consider telco augmentation fees. In both cases, budgeting for protected distribution requirements is now a primary concern for business communication professionals.

However, two factors make forecasting difficult. First, today's technology is more demanding on transport facilities. Customers increasingly want their communications systems to handle both voice and a multitude of data applications over the same cable. A second complication is the general business trend toward downsizing and relocating organizations. The question for the telecommunications planner has become, "Should I wire for today's needs... or for my applications five years from now?"

Precious few resources are out there today to help the planner who is wrestling with this question.

Some manufacturers are offering uniform distribution alternatives for their own applications. But compatibility for future applications remains limited, proprietary, or unknown. Users worry, and understandably so, that future applications may require installation of duplicate cabling systems or contamination of those systems already in place. Neither alternative is attractive.

Future planning aside, customers today also face the consequences of hardware decisions that they have been making in record numbers--largely without knowing whether they have the distribution cable to support fully their newly purchased telephone or computer systems.

A solution is possible. But it will take efforts by both the customer and the industry.

Customers must become knowledgeable about cable distribution technologies. Since 1984, Michigan Bell Communications has sold more than 300,000 Centrex lines (a great deal of these digital). We've found that even our most sophisticated customers are surprisingly ignorant of distribution technology.

Customers are making decisions to employ fiber-based distribution without considering the electronics required. Other budget-minded users imagine they can re-use existing 25-pair cable for new technology that requires only three-pair or "skinny" cable.

So customers need to study cable technology. Users must learn that "out-of-sight" does not mean "out-of-mind." And, contrary to what some customers believe, this approach is as true with telcoo-provided, central office-based systems like Centrex as it is with premises-based PBXs.

Manufacturers also need to roll up their sleeves and get into the fray. First, they must commit to a technology that

(Continued: page 8)



# Need a Consultant? Here's Why, When

--- W. Spencer Rice, President, Senior Partner,  
S & R Consultants Ltd., Madison, N. J.

Several knowledgeable articles have been written, many by consultants, describing the "appropriate" steps to take when selecting a consultant. Little has been written on "why" one needs a consultant and "when" a consultant's services are indicated.

Many businessmen have the belief that the use of a consultant is only indicated when a company lacks the staff or expertise in a specialized field, normally a field outside the normal business of the company, and that the expense of using a consultant is only warranted when the expenditure of large sums of capital are anticipated. Unfortunately, both of these widely held beliefs are often wrong and usually misleading.

Let's explore these myths in greater detail: My company, S&R Consultants Ltd., often works with firms that have a very large DP or communications staff, very often with a wide breadth of technical expertise. Yet the staffs with whom we work usually applaud our involvement and eagerly cooperate with us.

The reasons for this acceptance relate to the "why a consultant" question. Let's look at each.

**Credibility**--One of the most important qualities that consultants lends to a project is credibility--credibility with upper management, with major suppliers with whom they have worked in the past, with a firm's in-place staff and with the ultimate users of the equipment and services that are the subject of the project.

**Unbiased analysis**--The outside consultant at once has the benefit of many years of observation and experience with many companies and in many industries, and can draw upon this experience without bringing an internal, often prejudicial, view of a company's problems and alternative solutions.

**Ability to work with disparate factions**--A consultant is accustomed to recognizing political forces, suboptimal practices and turf issues within the workplace, and can work with the many personalities involved to hammer out solutions that have not been negotiated internally. Often, the consultant takes the place of a missing, formal, senior executive with control planning the involved parties and departments.

**Practical, detailed expertise**--Often, the consultant possesses detailed and more up-to-date information relating to equipment and service alternatives to a company's problems, plus the ability to make a logical match with the analyzed problems uncovered.

**Discreet source of advice**--Upper management at a client firm often uses the consultant as a sounding board and source of advice on alternative strategic or tactical scenarios under consideration by the company. Such deliberations often are not discussed with middle managers, other company divisions, etc., and are never destined for foes, competitors, industry analysts, and the like.

**When should a consultant be brought in?**

The belief that consultants are hired when their expense is legitimately offset by the dollar amount expected to be invested in a business decision is misleading for several reasons. For one, a strategic or tactical decision with which a company seeds assistance from a consultant may exceed in importance the dollar amounts involved for the company. Also, the need to act quickly in a competitive situation often does not afford a company time to develop in-house expertise or timely knowledge. A consultant's fees often obviate the hiring of internal expertise, the intensive, specialized training of existing staff, or both.

A company often hires a consultant to solve a problem that the internal staff has failed to resolve due to impediments found in the corporate culture, such as politics and turf issues, discussed above.

The unbiased view of an outside consultant often brings new perspectives and new alternative solutions not uncovered internally. Companies often wish to infuse new ideas into their corporate culture, particularly in industries where being "blind-sided" by competition or technology is a real possibility.

If the perceived high cost of a consultant cannot be justified for medium and small companies, how, then, do these companies--the same ones who often cannot afford specialized technical staff--obtain knowledge sufficient to make sound business decisions?

Whenever a business decision is a serious one for a particular company, the cost of outside expertise becomes relative. For example, a small company wishing to purchase a new communications system of 100 stations, may spend up to \$100,000 for a system--even more. A consultant's fee may be \$7,000-\$8,000 for advice, after analyzing the company's needs, operations, growth plans, etc. That same consultant may well save the client \$10,000 to \$20,000 on the total cost of the system--and more than \$100,000 over the life of the system--by negotiating a competitive price, guaranteed price protection for additions and maintenance, etc.

Aside from demonstrated savings in excess of the consultant's fee, one must also consider the downside cost of a communications system that does not work, or which is inefficient for its employees to use.

S&R Consultants once had a client of this size, whose average incoming telephone call represented a potential \$50,000 in revenues! Instead of an automatic call-distribution (ACD) system that would insure that all incoming calls were answered promptly, the company had purchased a large, inefficient PBX system that was already outdated technologically. The decision was based upon the recommendation of an executive's one-time golf partner, rather than on sound knowledge and competent analysis of the company's needs by a professional.

The above article appeared in MISWeek, Monday, October 12, 1987 Section II.

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## Critical Issues, Continued:

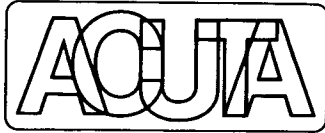
will support their future offerings. Second, they must be willing to communicate this information, which was traditionally considered "proprietary," to both customers and distributors. Far from compromising their position in the marketplace, such cooperation will actually strengthen the manufacturers' competitive edge.

I'm convinced that users will select suppliers with the same outlook because they'll be confident that the distribution system that they put in place today will support the technology they purchase five years from now.

The need for manufacturers to be "up front" with customers is critical to the customers' confidence level. Customers perceive, for example, that today's trend is toward the use of "skinny" wire as the primary distribution medium. But manufacturers are lending little open support of that perception.

In short, the time has come to address the premises distribution issue directly. It is not going away. As users continue to move toward the transmission of voice and data applications on the same cable, universal wiring capabilities become ever more critical.

Dick Barron is president and chief executive officer of Michigan Bell Communications, Inc. This article appeared in Connections, September, 1987 issue.



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